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PROJECT F.A.C.E. (PREPARING, ASPIRING, CAREER EXPLORATION).

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DAYTON CITY SCHOOL DISTRICT, OHIO

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CERTIFIED SCHOOL COUNSELORS WERE ASSIGNED TO TWO ELEMENTARY SCHOOLS TO DEVELOP, USE, AND TEST VOCATIONAL AND OCCUPATIONAL MATERIALS. ASPIRATION LEVELS OF STUDENTS IN ONE CLASS EACH IN THE SECOND, FOURTH, AND SIXTH GRADES IN EACH SCHOOL WERE ALSO EXPLORED AND RELATED TO OCCUPATIONAL POTENTIAL. METHODS OF USING OCCUPATIONAL MATERIALS EFFECTIVELY WERE ALSO TESTED. PRE- AND POST-TESTS WERE GIVEN TO ASSESS PUPIL KNOWLEDGE OF OCCUPATIONS. ACHIEVEMENT AND ABILITY MEASURES WERE OBTAINED EARLY IN THE SCHOOL YEAR. QUESTIONNAIRES WERE GIVEN TO TEACHERS AND PARENTS OF CHILDREN IN THE EXPERIMENTAL GROUPS. SOME FINDINGS WERE--(1) THE STUDENTS ASSIMILATED VOCATIONAL AND OCCUPATIONAL INFORMATION, (2) OLDER ELEMENTARY STUDENTS EXHIBITED GREATER VOCATIONAL AWARENESS, (3) CHANGES IN LEVEL OF ASPIRATION AS A FUNCTION OF LEARNING POTENTIAL WERE NOT DIFFERENTIATED BETWEEN THE EXPERIMENTAL AND CONTROL GROUPS, (4) THE DICTIONARY OF OCCUPATIONAL TITLES WAS USED SUCCESSFULLY BY THE COUNSELOR AND OLDER ELEMENTARY STUDENT, AND (5) PARENTS AND TEACHERS WERE ENTHUSIASTIC ABOUT THE PROGRAM. (SK)

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PROJECT P.A.C.E.
(Preparing, Aspiring, Career Exploration)

Dayton City School District
Dayton, Ohio
June 30, 1967

CG 000 420

PREFACE

The growth of elementary guidance in the State of Ohio has stimulated many studies relating to the role and function of the elementary school counselor. Project P.A.C.E. (Preparing, Aspiring, Career Exploration) is an endeavor to explore this role further through a vocationally-oriented elementary guidance program and to put some hypotheses to experimental test.

This project was funded under an amendment to Title V-A, National Defense Education Act and was administered through the local school district with approval of the Division of Guidance and Testing, Department of Education, State of Ohio. Grateful acknowledgment is expressed to the Division staff, Director John Odgers, State Supervisor Charles E. Weaver, and Elementary Guidance Coordinator, Michael F. Shelley, for their support and able assistance in this program.

The report which follows summarizes the observations and findings resulting from the efforts of many people. Twenty-four teachers at Jackson Primary, Jackson Elementary, and Belle Haven Elementary Schools were directly involved in the program, but encouragement was received also from many other staff members and consultants. Principals Virginia Hardin, Robert King, Jr., and Francis Birt were generous in their support and John White, research associate for the Dayton Schools, devoted many hours and much energy to the statistical evaluation.

A special note of thanks is due Michael Bathory, graduate assistant at Ohio State University, for his consistent presence and searching questions, and to Theda Rowley, Emily Voiles, and Beverly Large for typing the report.

Priscilla Cole, Counselor
Katherine Davis, Counselor
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Gene Hodson, Guidance Supervisor
William Goff, Project Director

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PROJECT P.A.C.E.

DESCRIPTION OF THE PROJECT

Description and Purpose

Project P.A.C.E. (Preparing, Aspiring, Career Exploration) outlined a plan for developing and assembling vocational and occupational materials for use in elementary grades and for using and testing these materials experimentally with individuals, groups, and a combination individual-group approach.

Certificated school counselors were assigned to two elementary schools for the following purposes:

(1) To establish two new elementary guidance programs around a central theme of vocational-occupational information.

(2) To develop and assemble usable vocational-occupational materials.

(3) To explore aspiration levels of elementary children in grades two, four, and six and to relate these to occupational potential.

(4) To explore methods of using occupational materials effectively in the elementary school.

From these purposes, the following questions were asked:

(1) Can vocational-occupational information be communicated effectively to elementary school children?

(2) Are some types of materials more effective than others?

(3) At what age/grade do children assimilate vocational-occupational materials best?

(4) Does the teacher-counselor make a difference in knowledge gained and concepts learned?

(5) What method of approach is best: group, individual, or a combination of these?

(6) a. Does the child change his level of aspiration as he is exposed to vocational-occupational information?

b. Does he become more or less realistic in relation to his learning potential?

(7) Is the Dictionary of Occupational Titles an effective elementary guidance tool?

(8) What are the teacher-counselor attitudes and responses toward the vocational-occupational theme as a significant aspect of the elementary guidance program?

Supervision of the project was provided by the Pupil Personnel Director and the Supervisor of Guidance and Testing for the Dayton City School District, with consultant help from a counselor educator from Ohio State University. Clerical assistance was also provided as well as financial support for the cost of testing and materials. Appendix A outlines budgetary provisions.

Setting

The Dayton City School District is presently comprised of fifty-six elementary schools and eleven high schools numbering 60,000 students. School organization is on an 8-4 plan with elementary school populations ranging from 300 to 1600. During the 1965-66 school year, seven school counselors were assigned for the first time to serve in eight elementary schools. Twelve more such counselors were added to the staff at the beginning of the 1966-67 school year, two of which were assigned to the P.A.C.E. project.

The vocational-occupational guidance project outlined here was an

effort to provide a vehicle through which the counselor role could be perceived by pupils, faculty, and parents as being of assistance to all students, and not centered on problem situations alone. Large schools were needed for the project in order to provide a sufficient number of experimental groups at each grade level. Belle Haven and Jackson elementary schools were chosen for the study and counselors assigned on a full-time basis to each.

Procedures

Guidance Program

For the first time in the Dayton City School District a position of Supervisor of Guidance and Testing was established as a division of the Pupil Personnel Department. Primary responsibilities of this division were to organize and develop guidance and counseling services throughout the city, provide supervision and direction for both elementary and secondary school counselors, supervise the city-wide group testing program, and assist in planning and supervision of the P.A.C.E. project. An office in the central administration building was established and clerical help was provided and materials purchased for the project through this office.

Two certificated elementary counselors were employed and assigned to the schools indicated. Both were directed to establish a guidance and counseling program in their respective schools with the provision that at least one-half of their time would be devoted to the P.A.C.E. project itself.

Experimental Program

Focus for this vocational-occupational program was at the second, fourth and sixth grade levels in both Belle Haven and Jackson schools. In each school, one class at each grade level was designated as a control

group and received no teaching or counseling in the vocational-occupational area. A second group at each level received instruction and counseling on an individual and small group basis provided by the counselor alone. A third group received instruction from the classroom teacher only (with an outline provided), while a fourth group received instruction on a combination individual-group basis provided by both counselor and teacher.

Pre-planning with the two counselors was needed two weeks prior to the opening of the school year to help them to become acquainted with some of the materials available and to order additional materials. The cooperation of principals, teachers, teacher consultants, and supervisors was sought in several preparatory meetings explaining the program during the first month of school. Unit outlines were prepared (Appendix B), revised and further developed as the year progressed through monthly conferences with counselors, principals, supervisors, and the University consultant.

Pre- and post-testing materials were developed to assess general knowledge of occupations. An open ended questionnaire adapting the North-Hatt technique (NORC, 1947)[1] was used to estimate immediate knowledge of the occupational pursuits of parents and to evaluate the reality of current occupational choice. Haller and Miller's (1961)[2] Occupational Aspiration Scale was modified to evaluate current levels of aspiration of the students tested. Pre-testing was accomplished in October prior to the initiation of the classroom procedures. Post-testing

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1 National Opinion Research Center. Jobs and occupations: a popular evaluation. Opinion News, 1947, 9, 3-13.

2 Haller, A. and Miller, I. The occupational-aspiration scale: theory, structure and correlates. Unpublished manuscript, U.S. Office of Education, 1961.

was completed in May, approximately one month after the completion of the experimental aspects of the program.

Measures of both achievement and school ability were made during the early part of the school year. The Lorge Thorndike Intelligence Scale and the Metropolitan Achievement Test were used at the second grade level, while the Ohio Survey Test was administered at the fourth and sixth grade levels. Scores from the regular city-wide testing program with the California Test of Mental Maturity were also available for all grades for comparative purposes.

Table 1 summarizes the instruments used in the evaluation program.

Table 1
Methods of Evaluation

Grade	Time Given	Technique	Answer to Question
2	Oct.	Lorge Thorndike Intell.Scale	6b
	Oct.	Metropolitan Achievement Test	6b
4,6	Oct.	Ohio Survey Tests	6b
2,4,6	Oct.	California Mental Maturity	6b
2,4,6	Oct.& May	Occupational Information Questionnaire	1,6b
4,6	Oct. & May	Occupational Aspiration Checklist	6a
2,4,6	May	Listing of Jobs	1,3
	May	Teacher Questionnaire	1,8
	May	Parent Questionnaire	1,8

DESCRIPTION OF PROJECT OPERATION

The flow chart (Fig. 1) on the next page outlines the organization and operation of the project, while Appendix B presents the general plan in units of study. However, the total program can best be understood in relation to what was actually done through narrative reports submitted by the two counselors in the schools involved. As noted above, the content of the units of study were developed on a cooperative basis. Although this structure was established and the experimental groups specifically designated in each school, it will be noted that each counselor adapted some techniques to serve the needs of their particular groups.

Belle Haven School (Priscilla Cole, Counselor)

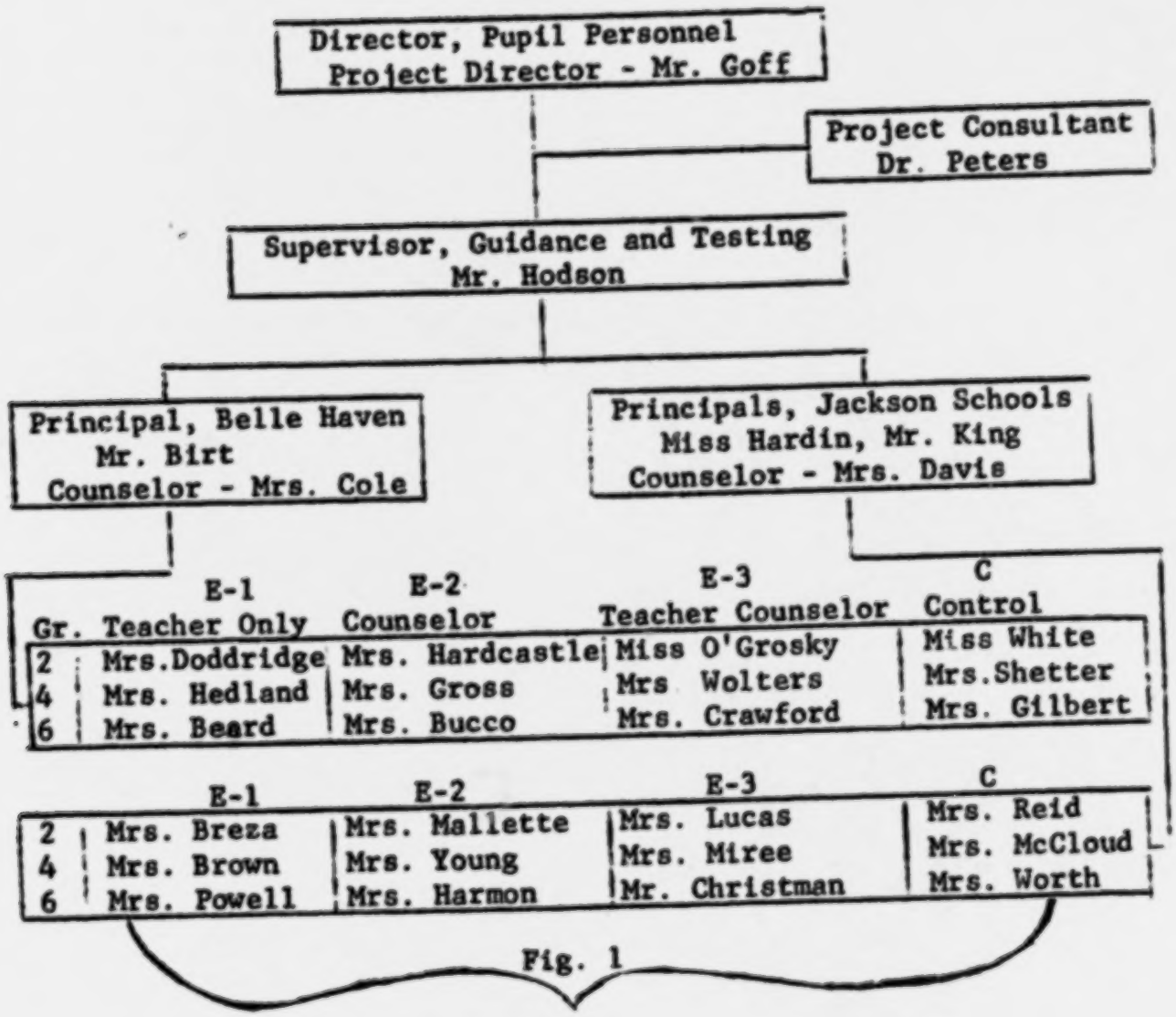
Setting

Belle Haven Elementary School is located in a middle-class suburban area of Dayton. There are 1350 students enrolled in grade kindergarten through eight. The community has an all-white population with approximately twelve percent of the students Jewish. There is one parochial school that enrolls nearly all the Catholic children from grades two through eight.

There is some disparity in the wealth and social status among the people. While most people own their homes, the range of price on housing is from $10,000 to $40,000. Most of the children in the school live in the moderately priced homes and their fathers are employed in some type of manufacturing. The upper middle-class students' parents are mostly professional people with doctors, lawyers, teachers, and well-paid businessmen being represented.

The school has a staff of forty-three full-time teachers and

Project Organization and Operation



Gr.	E-1 Teacher Only	E-2 Counselor	E-3 Teacher Counselor	C Control
2	Mrs. Doddridge	Mrs. Hardcastle	Miss O'Grosky	Miss White
4	Mrs. Hedland	Mrs. Gross	Mrs Wolters	Mrs. Shetter
6	Mrs. Beard	Mrs. Bucco	Mrs. Crawford	Mrs. Gilbert

	E-1	E-2	E-3	C
2	Mrs. Breza	Mrs. Mallette	Mrs. Lucas	Mrs. Reid
4	Mrs. Brown	Mrs. Young	Mrs. Miree	Mrs. McCloud
6	Mrs. Powell	Mrs. Harmon	Mr. Christman	Mrs. Worth

Fig. 1

seven teachers who teach special subjects. Excluding the principal and counselor, five teachers have a Master's Degree, thirty-four have a Bachelor's Degree, and four have no degree, but permanent certification.

The academic performance of the school population is above the city average and the school has more children testing above average in academic ability (national norms) than below. There is considerable pressure from parents and teachers for children to achieve well in school. If schools were "graded", Belle Haven would undoubtedly receive a high rating if test scores were a criteria.

"The Wide World of Jobs" began with children at all levels investigating the wage-earner's jobs in the family. The reports were read orally and the different kinds of jobs within our own classroom charted. This was a big assignment for the second-year students who often confused an address ("Daddy's job is at the office") for a job. Some structuring was necessary so children could actually find out what father or mother was really doing at work.

Fourth and sixth graders classified jobs into general categories. The Dictionary of Occupational Titles is a good source book for this activity. One student found he could change his father's job name from "Boss of Forty People" to Personnel Manager! Another was impressed that his father's job depended on his knowledge of advanced mathematics. Many parents responded to our questionnaire that children had taken a new interest in father's occupation.

The book series by Carla Green of "I Want To Be" published by Children's Press for primary children was a popular reading activity.

Book reports were prepared and shared with the class.

Ideas from the SRA Junior Guidance Series were adapted for use in the fourth and sixth levels. Preparing "job trees" interested this group enough for some of the children to make several. The "Post Office" tree turned out to have twenty-seven branches -- all different job titles done in the post office.

Sixth level children wrote to national and local sources for occupational information. Some of it was read, but mostly this was an activity to help students discover methods of obtaining vocational information.

As we moved toward our next unit which attempted to get children to explore themselves, we used the SRA Interest Inventory "What I Like To Do" at fourth and sixth grade level. This was a vehicle to stimulate students thinking about what they liked to do now. This activity was not appropriate for second graders, but the fourth and sixth grade enjoyed it and some requested to take it again so they could "think more on the answers".

At this point in the project, the counselor began having individual conferences with students where their interests and aptitudes and accomplishments were discussed. Children were encouraged to analyze themselves as much as possible for their level of maturity.

The sixth grade level used the SRA Widening Occupational Horizon Kit which is designed for junior high school level. There are film strips, record books children can keep and over four-hundred occupational briefs. This sixth grade, with help and encouragement, liked to browse through many of the job descriptions to familiarize themselves with different jobs.

Getting the most out of school was so related to occupations

that guidance filmstrips on the subjects of study habits, citizenship, and getting along with others were all integrated into the instruction whenever possible. We found several series of filmstrips with records that applied to our idea of "getting to know yourself".

The second grade worked actively with "Neighborhoods at Work" from SRA Our Working World series. Jobs in the neighborhood were emphasized and the economics of why people work was given considerable attention. To illustrate children's confusion about rather common jobs, every child in a second grade class thought a carpenter was a man who installs carpets in houses! The job tree in "Construction Industry" (done together in a class) had twenty-seven jobs listed -- including carpenter.

Description of Techniques

A pattern of instruction for teaching vocational development in the elementary school was difficult to form. There are few materials on the market for this age level. There were some texts that are related to teaching vocational development but the paucity of materials was a real problem. But you have to start somewhere, so our initial unit centered around the theme of "What Do Families Do".

If a family is to live together happily, everyone must contribute and do his "job" so a family may function. This concept is readily discernible to most adults. But in answering the question "What does Mother do?", typical answers were; "Nothing", "Listens to the radio", "Stays home". To enhance the importance of a Mother's role, as well as other family members, and to relate the idea that it is a job seemed a logical place to begin.

Younger children did role-playing, drew pictures, dictated stories for charts and interviewed their mothers and fathers on work done at home. Booklets were made of the work activities of all members of the family. Science Research Associates has a unique new social studies program called "Our Working World". It focuses on the family in First Grade Unit but the filmstrips with records were used here to point out the division of labor in a family. This contributed much to the role-playing which the children enjoyed.

The older children in the project did more sophisticated research and report making. "Time Studies" of time it took Mother to do household tasks indicated most mothers worked at least sixty hours a week! One mother responded that she was on duty every hour of the week. Some sixth grade classes calculated the salary mothers could earn by doing the identical job in industries. To replace Mother with paid help would cost over $90.00 a week! This was a very successful unit.

"A Colony on the Moon" was our culminating activity for the fourth and sixth graders. Each child chose the job he would like to do if he were to help build a new community in outer space. Results were recorded on both video and sound tape. The sixth grade class girls discovered they had six nurses! But the girls quickly began to change jobs to a related field -- dental hygienist, school nurse, and social worker. The three "engineers" became a civil engineer (road builder), an architect, and draftsman. This indicated to us how the children had learned about the many jobs there are in the world that can fit their interests.

Perhaps the residual knowledge in this program will be scant.

But the children who had had the opportunity to take part in this program will surely be more alert to the opportunities there are for him in school and the wide world of work.

Qualitative Evaluation

In the introduction to our work in vocations and occupations, the family seemed a logical place to begin. At second grade level this approach was very effective in helping children consolidate their ideas of the roles different members of the family play in building a pleasant home life. A large class booklet was prepared that had charts explaining family roles. Role-playing was an excellent tool in working out the "what-I-can-do-in-the-family" concept. As children talked about their families, the idea of writing down their own stories about their own families evolved. One of the significant ideas that came out of this unit was that while fathers and mothers do have wage-earning jobs outside the home, they also have real jobs to perform in the home. Our next step was to develop concepts about the wide variety of jobs there are in the community. The first assignment was to find out about father's job. This was a most difficult assignment for this age child. One significant learning, the fact that a job is doing something, not just a place or an address, was a result of this project.

Children at this age seem to project themselves easily into a future job. The children read books ("What I Want To Be" series) and made short reports to the class. This opened another door for these children. Now they believed in the reality of work and that fantasies of work and workers has substance.

In our latter part of this program, we work with the SRA Series "Our Working World". The children began to notice their neighborhoods and learn how much work and how many different kinds of workers made their own neighborhood possible.

If one word could be used to describe the learning these children experienced about occupations, I would use awareness. From the vague feeling that people did jobs and worked somewhere apart from themselves, children reached firmer ground. Jobs are done everywhere -- my own house, my food, my neighborhood came only from people working at something they like to do -- people like mother, father, friends, and neighbors.

At the fourth grade level, jobs the family does to make life more pleasant is more firmly established. However, there were many children who confused family jobs with jobs outside the home. Our project of a job analysis on mother's duties helped the children get a realistic idea of the monetary value of a mother's job. When children tabulated all of mother's duties and added her "salary" she could earn performing these jobs outside the home, a new respect for mother's job was noted.

Fathers' jobs as the wage-earners were reported to the class. Our filmstrip "What is a Job" brought out questions and answers about fathers' jobs. Jobs were listed and put into "families". Children learned that one job could be performed in many kinds of work, e.g., truck drivers are employed by many industries. Then the question, "What do I want to do?" had to be answered. The children discussed interests and what they like to do best. The Interest Inventory (SRA) was fun and full of surprises. What we

liked to do was suddenly a useful bit of knowledge that gave satisfaction. The understanding that the job one chooses can be something exciting and interesting was a new concept.

The importance of school in getting the job we want became more important. We used filmstrips and records on study skills and tried to think how we could get more from school. Getting along in school means getting along with other people, too. The children began to explore their personalities, what they like about others and how to make friends. The children took pride in their own self-analysis. Now school is a place to learn about the world and about myself. School is really our first job.

One word again -- awareness-- is the word that seems to describe learning about occupations in fourth grade. Awareness of the thousands of jobs, awareness of myself, and awareness of the value of school in being self-sustaining and happy in life.

At sixth grade, the beginning of family study was generalities but at the end certain specifics became more apparent. This age group quickly assimilated the role of family members and each one's contribution to a good family life. While putting a "salary" evaluation on Mother's job, she attained a new importance in the family.

That jobs could be classified into categories, the uniqueness of some work and the contribution each job makes to another job were concepts learned from knowledge of sources of family income. In one class there were four "accountants". None of them

did the same kind of work -- internal revenue, a large department store, accountant service for small businesses and an insurance office -- each employed these "accountants".

Interest in grades and test scores became quite insistent as we moved into self-study. One child remarked that "everyone is always giving us tests around here but nobody tells us what we get". Interviews with individuals gave each child a chance to begin to evaluate himself. Personal assessment is not easy and can be quite painful if not done by a person who is sensitive and specially trained to help children in this area. Awareness of vocations in relation to one's ability is a difficult task.

Few children, if any, decided on a specific job at any level of instruction -- it was not the intention of the project for them to do so. But specific areas of interest did begin to emerge. "I can choose my job" versus "the job I can do" will be a personal battle. Realistic choices were apparent. The girl who wanted to work in a hospital as an aide decided she was going to try for nurse's training. She was not really aware of her academic ability.

The Dictionary of Occupational Titles was introduced at this level. The book was of great interest to children in looking up their father's job or specific job they were currently interested in. The D.O.T. vocabulary appears to have limited use without direct guidance.

Again we must use the word awareness. Widening our outlook in the world of jobs and learning about ourselves was the goal.

It seemed we did much more.

Jackson Schools (Katherine Davis, Counselor)

Setting

Jackson Schools (Elementary and Primary) are located on the same general plot of ground in a low socio-economic area on the "West side" of the city. Twenty-three percent of the families are welfare recipients, while ninety-three percent of the children are considered as "educationally deprived". However, the parents of children in the school are extremely responsive to the leadership offered by the school staff and excellent communication exists between parents and school.

Jackson Elementary School houses 966 children (4-8) while Jackson Primary contains 860 pupils (K-3). The school counselor was assigned only to the experimental second grade groups in the primary school. The schools are served by two principals and a total staff of 65 teachers.

Description of Techniques

The general procedures of operation were as follows:

(1) Arouse enthusiasm by building on the children's experiences.

(2) Increase motivation through items of current interest in the school, the community, and the newspaper.

(3) Maintain interest through discussion of recent trips, stories, films, radio and TV programs, and talks with visitors.

The <u>involved</u> <u>activities</u> emerged through:

(1) Organization of committees.

(2) Deciding on which problems were most important.

(3) Discussion of how answers were to be found.

(4) Discussion of where to get answers.

(5) Discovery of what children want to know about vocations and occupations.

The children were made aware of the following social and economic community changes which gave impetus to the need for the P.A.C.E. Project:

Changes in industry, such as automation and specialization.

Vocational changes, such as an increase in labor forces.

Decreased employment opportunities for youth.

Complex world of work.

Job requirements.

Interest in careers in elementary grades.

These units exposed the children to a variety of knowledge and as a result they established a better understanding of themselves and the world of work.

The project involved the children in discovery and future planning by exploring abilities, aptitudes, interests, strengths and liabilities, and developing self-concept in relation to occupational and vocational development.

For leisure reading and study the children were taken to the public library, and upon their return, compiled a nine-page

vocational and occupational bibliography for grades one through eight. It was encouraging to see the children participating in this program devoting time to reading the books.

Qualitative Evaluation

In order to aid with the problems involved in many of our units, written plans were prepared in order to present specific information to the class. The following is an example:

The objective used in this presentation was "Job worth-while is a job well done".

1. Content
    a. Evaluate your daily work.
    b. Check your study habits which become your work habits and how well you keep up on your job.
    c. What pride do you show in tasks completed at home, school, in your clubs?
    d. Why do workers lose their jobs?
    e. What do they say?
2. Repeated study shows that more workers lose their jobs due to poor character qualities than to lack of skill:
    a. Carelessness
    b. Unwilling to follow rules
    c. Laziness
    d. Absence or tardiness without cause
    e. Troublemaking
    f. Too much attention to outside interests

g. Lack of initiative

h. Too little or too much ambition

i. Disloyalty or irresponsibility

j. Lack of adaptability

k. Misrepresentation

3. Activities

a. As the committee members read books to learn personal requirements or adjustments of noted people, they also noted why these pecple were successful.

b. These objectives offered a good opportunity for the class to do some self-evaluation of their own work in the classroom, home, and extra class activities.

c. The pupils made a list of why they thought people lose jobs.

d. The pupils compared their own list with that of repeated studies.

e. The pupils diagnosed their success as lack of success in carrying out chores at home, academic progress, and extra class activities.

1. What effect would these traits have on an occupational choice?

2. How should our behavior change?

4. Skills

   a. The pupils developed some skills in analyzing themselves, and facing facts.

   b. The pupils did some critical thinking about improving present working habits and traits.

   c. Pupils appreciated what research had to say about job failures.

   d. Pupils made constructive suggestions as to how to change traits which lead to job failures.

Cooperatively, the counselor, teacher, and students compiled an outstanding vocational and occupational transparency book of many ideas. Also, a huge scrapbook was compiled which catered to the interests, abilities, personality, job qualifications, photography work, leisure time used wisely, good eating habits, and many other experiences that grew out of natural activities.

Methods of Evaluation

The evaluative instruments required in this project have been previously described and outlined (Table 1, page 5). These techniques involved the use of school ability and achievement tests, an Occupational Information Questionnaire (Appendix C), an Occupational Aspiration Checklist (Appendix D), and a "listing of jobs" (Appendix I).

In order to catalogue some qualitative responses, a questionnaire (Appendix G) was given to teachers in the experimental classes and another (Appendix H) was given to the parents of children in these groups. Information received from this approach permitted some feedback on the program from those other than the children involved.

Data from these tests, checklists and questionnaires were assembled into five categories preparatory to statistical analysis and the evaluation of some of the qualitative aspects of the study. These categories included: (1) vocational occupational knowledge, (2) level of vocational aspiration, (3) realism of occupational choice, (4) levels of school ability and achievement, (5) parent-teacher responses.

Vocational-occupational knowledge was measured by checking both the student's knowledge of parents' occupations and his ability to list jobs. Level of vocational aspiration and realism of occupational choice were obtained from the Occupational Aspiration Checklist and the Occupational Information Questionnaire, respectively.

In all of these categories, statistical comparisons were made between experimental and control groups within grade, between grade levels in the same school and between grade levels in the two schools.

The scores obtained on the Occupational Aspiration Checklist through the assignment of a prestige value to each choice were compared statistically with school ability and achievement test scores for the fourth and sixth grades. Responses to teacher and parent questionnaires were tallied but comments generated by the questions were also classified.

Summary of Evaluation

Out of the purposes of this project, eight questions were chosen. Some answers are now available.

1. Can vocational-occupational information be communicated effectively to elementary school children?

   Teacher, parent and counselor response to this question leaves no doubt that vocational-occupational information <u>can</u> be communicated effectively to elementary students. The response of children to the exploration of one of their major life concerns is overwhelmingly enthusiastic. The vocational-occupational approach, whether done by teacher, counselor, or both, serves as a real motivator to learning about the world which the child inhabits.

Responses to tests of knowledge summarized in Table 1 give further support to the above conclusions. The effectiveness of information dissemination, however, would appear to depend upon a number of factors, including teacher support, grade level and the general background of the students and their families.

2. Are some types of material more effective than others?

From the observations of the counselors, the Widening Occupational Horizons Kit and Our Working World Kit published by Science Research Associates were judged to be among the most effective guides to the development of vocational awareness among children. However, as noted in the school reports, it was the improvised approach which stimulated considerable interest. Time studies, interviews and "job trees" became effective tools. Visitations to businesses and industries encouraged research and study into previously unheard-of occupations.

Appendixes E and F contain a listing of materials and special aids which were particularly useful, along with a brief summary of occupational titles which were helpful in the fourth and sixth grades.

TABLE 1

VOCATIONAL-OCCUPATIONAL KNOWLEDGE
SUMMARY

Area Tested Statistic	Belle Haven School	Jackson Schools
Knowledge of Parents' Occupations - Percent Statistic	Substantial gains in 2nd and 4th in all experimental groups. 6th control equal to experimental groups.	All groups gained. Most improvement at 2nd.
	All groups at all levels gained.	E-2 consistently lowest in 2nd and 4th. E-3 consistently highest in 2nd and 4th.
	Little difference between grades.	Little difference within 6th grade groups.
	Between Schools Greater percentage gain in all groups in Jackson. Higher scores in total knowledge in Belle Haven.	
Listing of Jobs t-test	All groups higher than C in 2nd. E-2 and E-3 higher than C in 4th. C higher than E-1 and E-2 at 6th.	E and C same except: E-2 lower than C in 2nd. E-1 higher than C in 6th.
	E-1 and E-2 higher than E-3 at 2nd. E-2 higher than E-1 and E-3 at 6th.	E-1 and E-3 higher than E-2 at 2nd. E-1 higher than E-2 and E-3 at 6th
	6th higher than 2nd or 4th	4th and 6th higher than 2nd.
	Between Schools Belle Haven consistently higher at all grade levels.	

E-1, teacher only groups; E-2, counselor only groups; E-3, teacher-counselor groups; C, control groups.

3. At what age/grade do children assimilate vocational-occupational materials best?

The evaluative instruments used in this project do not give a clear-cut answer to this question. The "listing of jobs" revealed that older students were able to name more jobs and be more precise in the identification of parental occupations, thus giving some indication of greater vocational awareness. Although younger children responded eagerly to the materials presented, counselors gained the impression that the added experience which increased age provides, did permit the oldest children (sixth graders) to involve themselves more meaningfully in learning tasks.

Neither reality of choice nor occupational aspiration responses offer help in evaluating the "best" time for the introduction of occupational materials.

4. Does the teacher-counselor make a difference in knowledge gained and concepts learned?

It quickly became apparent that this question could not be answered with an N of two counselors working in very different school settings. Both counselors adapted programs to their particular situations, e.g., in one school, visitations were important to build some experience, while in the other parental occupations could be more mean-

ingfully explored.

But there would be little doubt, from the observations of the project director, supervisor and consultant that the individual initiative of the counselor would make a considerable difference in the effectiveness of any vocational occupational program. The two counselors involved in this project evidenced an exceptional degree of creativeness and were superior in their willingness to innovate and adapt methods of instruction and counseling to children. One needed only to visit a classroom to observe the interest and enthusiasm of the children to be convinced of the truly remarkable leadership provided by the school counselors involved.

5. What method of approach is best: group, individual or a combination of these?

This question cannot be answered on the basis of the experimental data. Reference to the summary outlines in Tables 1 and 2 show no consistency in pattern between groups. In some situations, control groups actually showed greater gains than the experimental classes (e.g., Belle Haven sixth grade).

Counselors gained the impression, however, that what the counselor actually does within each class and the cooperation on the part of the teacher are the two major

TABLE 2

STATUS OF SELF-CONCEPT
SUMMARY

Area Tested Statistic	Belle Haven School	Jackson Schools
Level of Vocational Aspiration - t-test	6th C higher than E-1. All other differences not significant. No significant differences among E groups. 6th higher than 4th. Pre- to post-testing higher in 6th.	C higher than any E in 4th grade. E-2 higher than C in 6th. E-1 higher than E-2 or E-3, but lower than C. E-3 higher than E-2, but lower than C. 4th higher than 6th. Pre- to post-testing higher in 4th.
	Between Schools 4th in Jackson significantly higher than 4th in Belle Haven 6th in Belle Haven significantly higher than 6th in Jackson.	
Reality of Occupational Choice - X^2	6th C higher than all E. 2nd higher than 4th. 6th higher than 4th. 2nd higher than 4th, pre- to post-testing. 2nd higher than 6th, pre- to post-testing.	E-1 higher than C at 6th. E-1 higher than E-2 at 6th 4th higher than 6th. 2nd higher than 6th, pre- to post-testing. 4th higher than 6th, pre- to post-testing.
	Between Schools All grades in Belle Haven made more realistic choices. Grades 4 and 6 in Jackson did make gains in realistic choice	

E-1, teacher only groups; E-2, counselor only groups; E-3 teacher-counselor groups; C, control groups.

factors in making the difference in the progress of the children. In one situation, for example, it appeared that the teacher was almost in competition with the counselor.

6. (a) Does the child change his level of aspiration as he is exposed to vocational-occupational information?
   (b) Does he become more or less realistic in relation to his learning potential.

Reference to the Status of Self-Concept Summary in Table 2 provides some insight into these two questions.

Relative to level of occupational aspiration, second grade students could not be adequately evaluated since the Occupational Aspiration Checklist was discovered to be inappropriate to their skills in reading and understanding. From the information collected from fourth and sixth grades, only one class, the counselor-only group in the fourth grade at Jackson Elementary School attained higher aspiration scores than the control group. Thus, in this one situation, level of aspiration did change to a significantly higher level, presumably in part due to the vocational guidance program. Contamination of the control groups may be a possible explanation for the lack of any other clear results.

Four counselor judges were asked to evaluate the reality of occupational choice of students before and after the experimental program following guidelines relating to ability and achievement from the Dictionary of Occupational Titles. These results are tabulated in Table 3 and a summary of the findings can be noted in Table 2 (page 27). Significance tests applied to these results indicate that children in the teacher-only group (E-1) at Jackson Elementary School were the only ones to achieve a significantly greater number of realistic occupational responses following the vocational-occupational program. While five out of the six experimental groups did evidence gains in realistic responses, this was paralleled by control group gains. There was a clear indication that children from the higher socio-economic backgrounds (Belle Haven) made more realistic choices.

7. Is the Dictionary of Occupational Titles an effective elementary guidance tool?

Pupils appear to be impressed by the number and variety of occupations identified by the D.O.T. It becomes useful to the counselor and to the older student simply as a dictionary, with a description of various occupations, their relatedness to each other, and the training, abilities, skills, and interests believed necessary to enter a particular field.

TABLE 3

REALISM OF PUPIL CHOICE

Grade	Group	BELLE HAVEN SCHOOL N	Realistic Choices Pre-test	Post-Test	JACKSON SCHOOLS N	Realistic Choices Pre-Test	Post-Test
2	E-1	22	5	10	22	0	5
	E-2	24	7	14	23	0	3
	E-3	23	7	16	21	0	4
	C	24	8	13	29	1	8
	Total	93	27	53	95	1	20
4	E-1	27	11	13	23	3	8
	E-2	25	6	9	19	3	7
	E-3	25	10	11	27	4	6
	C	24	4	9	21	3	5
	Total	101	31	42	90	13	26
6	E-1	31	17	13	30	8	8
	E-2	26	9	16	22	2	1
	E-3	32	14	14	25	3	4
	C	27	13	21	20	3	2
	Total	116	53	64	97	16	15

The examination into the reality of pupil responses sheds some doubt on Intelligence (G), Verbal (V) and Numerical (N) aptitudes as indicators of satisfactory vocational choice. Of course, the D.O.T. points out many other identifying characteristics which comprise trait components in successful vocational performance. Many of these (interests, temperaments, physical demands) are extremely difficult to assess in young children.

The criterion data provided by the D.O.T. was very useful in assisting counselors in making judgments of the reality of the pupil's occupational choice. The Intelligence (G), Verbal (V), and Numerical (N) aptitudes as level indicators of satisfactory job performance can be related easily to school ability and achievement scores.

8. What are the teacher-parent attitudes and responses toward the vocational-occupational theme as a significant aspect of the elementary guidance program?

As might be expected from their intimate involvement, both field counselors were highly pleased with the response of children to the vocational-occupational program. Virtually no problems in motivation were encountered in getting pupils to look seriously at vocational fields, nor in getting them involved in looking more closely at themselves.

However, the responses of teachers in relation to the program and the counselor's role in it, and parents' reactions to their child's participation, provide two different viewpoints. Questionnaires with an open end for comments were given to teachers and parents at both schools. In projects of this type comments from those deeply involved in the interaction can be quite meaningful. This information should be used to complement the statistical material that preceded this section. It should be kept in mind that the comments were not categorized by groups as was the statistical data (grade level, counselor, teacher, teacher-counselor, and control groups). It is suggested that referral be made to the description of each school (pages 6, 16) before considering the comments made by teachers and parents.

Teacher Response

The teachers at Jackson Elementary School highly praised all phases of the program. To the first question, "Do you think this has been a worthwhile program for your class?", all teachers answered yes. To the second question, "Would you feel that this program would be more appropriate at another level?", the teachers felt that this program would be of value at all grade levels. Question three, "Do you think that a vocational development

program should be integrated into the curriculum?" "Yes", unanimously to this question. Question four, "If so, do you feel that the counselor should serve as a resource person to this program?" The counselor was a vital factor in making this project successful was the opinion of the teachers. The following three comments will relate their feelings toward this project:

1. "This program has helped to emphasize the broader areas of social living. It helped the child to better understand his responsibility to his family; family responsibility to the community. It helped the child to think more critically about himself as a contributing citizen."
2. "All of our children enjoyed this program."
3. "The counselor has been very beneficial and helpful. She was definitely needed to guide us."

Teachers at Belle Haven varied in their opinions of the project. To the first question, five answered, "Yes", three "No", and one did not answer. To question two, the majority felt that the program was of value but perhaps would be more appropriate at the junior high level. To question three, teachers expressed the belief that the program could be integrated into the curriculum and probably most effectively in the social studies area. To question four, the majority thought that the counselor could be of great help in such a program. The following comments are

typical:

1. "We had many worthwhile discussions from filmstrips. As with many discussions, some learn and give out more than others."
2. "That type of discussion is naturally correlated with other subjects without taking a special period to discuss it."
3. "I believe it might have made some more aware of many vocations that they were not familiar with before."
4. "Some stress in social studies program showing vocations available at different locations, climates, etc."
5. "Junior high seems a sensible place to get one's teeth into vocational guidance."
6. "Counselor could be very helpful in finding different types of materials and perhaps speakers."

Parent Response

The parents at Jackson Elementary School were very pleased with all aspects of the program. Although over ninety-nine percent of the responses to questions were answered in the affirmative, the following comments will be even more enlightening:

1. "I think it has been a worthwhile program because it kept my daughter interested in school."
2. "My child knows now how important it is to learn as much as possible in order to get a worthwhile job."

3. "Every child received something from this program, as to think seriously about themselves as a person."
4. "I really enjoyed this program, and from it I think it has inspired grown-ups and children."
5. "I feel that Vickie has shown more interest in school and has improved quite a bit."
6. "It is too bad it hadn't been introduced years ago. Perhaps it would have ended many of the dropouts in some areas."

The parents at Belle Haven Elementary School answered the majority of the questions affirmatively. However, comments bear out the fact that these are basically college-oriented parents. A greater involvement of parents so that they would help their children look at the future more realistically would appear to be worthwhile in the future program. The following comments are typical:

1. "My son was quite stimulated by this program."
2. "This has shown my daughter that the school is interested in her future as an adult."
3. "I feel that any program that gets a child to start thinking about his or her future is worthwhile."
4. "He still wants to be a pediatrician but now he can spell the word."
5. "I believe this program would be more worthwhile to

children who were not reared in a college-oriented home. While we feel that this has been a worthwhile program to our daughter, it is somewhat run-of-the-mill to her."

* * *

Between School Comparisons

As will be noted from Tables 1 and 2, an additional comparison was made between grade level groups between the two schools. Pupils at Belle Haven School were clearly more knowledgeable about parents' occupations and the variety of jobs available than those in the Jackson Schools.

From a logical standpoint, it might be expected that Belle Haven School, represented by children from a higher socio-economic level, would obtain higher levels of aspiration scores than those in Jackson School. This proved true at the sixth grade level with a high degree of significance. However, the fourth grades at Jackson School demonstrated significantly higher scores than their counterparts at Belle Haven. The impression of the counselors and teacher that interest ran high on the part of the fourth grade students, and was perhaps (engendered) in the control group, too, may well have accounted for this difference.

Despite the favorable gains in the fourth grade groups at Jackson Schools, children at Belle Haven did make more realistic choices

at the end of the program. Roe[1] has noted that the occupation of the father is the most usable single index of the socio-economic status of all members of the family. It would follow, then, that children at Belle Haven School already have their "headstart" in looking realistically at the world of work. While it might be true that some parents of high socio-economic status would be overly ambitious for their children, it would be equally true that children from poorer homes might never have had the opportunity to think much about their life's work, nor have the example or guidance in this direction from the home.

The realism scores obtained from counselor judgments of pupil choices in this study seem to bear no direct relationship to the Ginsberg[2] theory. Whereas a "policeman" might be considered by Ginsberg as a fantasy choice for a second or fourth grader, judges in this study would have considered such a choice as realistic for the child if it matched his ability and achievement levels.

The relatively higher aspiration levels of fourth grade students in Jackson School, coupled with parallel gains in making realistic

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1 Roe, A. Early determinants of vocational choice. J. counsel. Psychol., 1957, 4, 212-217.

2 Ginsberg, E., Ginsberg, S., Axelrod, S. and Herma, J. Occupational choice. New York: Columbia University Press, 1951.

choices, highlights the impression gained by Henderson[1] in a study of Negro children, ages thirteen to eighteen in Detroit, Michigan. He states that:

> A person's level of aspiration is formed in dynamic social situations. Usually, those who experience success will try to approximate or improve upon their past performance, while those who experience failure will stop trying, or lower their aspirations.

The fourth grade students at Jackson School apparently began trying!

CONCLUSIONS AND RECOMMENDATIONS

Conclusions

Proceeding from the above questions, the following conclusions are presented:

1. Measurable increments in vocational knowledge, level of occupational aspiration and realism of occupational choice can be attained following a planned vocational-occupational program.
2. The "best" approach to the instruction and counseling in a vocational-occupational program is undetermined from experimental data obtained in this project.

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1 Henderson, G. Occupational aspirations of poverty-stricken Negro students. Voc. Guid. Quart., 1966, 1, 41-45.

3. Teacher and parent response to a vocational guidance program at the elementary school level is generally positive and supportive. This is particularly true in disadvantaged areas.

That measurable changes did occur during the six-month instruction and counseling period is clear from all measures used. That positive changes were the result of the vocational program is open to question due also to the measurable increase in scores of the control groups. Three major possibilities exist which would explain this situation:

1. Contamination occurred in the control groups.
2. Measurement instruments were not sensitive enough to evaluate more subtle changes.
3. The program itself was not sufficiently stimulating.

In this initial study, it is probable that all three of these factors played some role in minimizing significant gains. Student responses tend to eleiminate the third possibility, however. Future research will need to examine and control all of these conditions to a greater extent.

It should be emphasized here again that the entire program placed stress upon the developmental aspects of vocational awareness. Every effort was made to avoid teaching for the test in the experimental groups. The chance to explore choices and to examine many occupations was pursued throughout the instructional part of the program.

Recommendations

While the statistical data collected and analyzed through this project contain gains which are minimal or not significant in the experimental aspects of the program, response by teachers and parents, acceptance by administrators, and support by the counselors involved suggests that the project should be pursued for another year in two different schools with two new counselors. The knowledge and experience gained by the present staff would be put to use through the same plan previously adopted of regular conferences and staffings throughout the year, along with direct observation and assistance to the new counselors.

The experimental groups in grades two, four, and six would be altered as follows:

(1) E-1 would receive vocational guidance strictly on an individual basis provided by the school counselor.

(2) E-2 would receive vocational guidance from both the classroom teacher and the counselor on a group basis along with encouragement to the pupil to seek individual counseling.

(3) E-3 would receive group guidance provided by both teacher and counselor, but with no encouragement for the pupil to seek individual counseling.

(4) C would be a control group, but designated as such in

another similar school, thus avoiding some of the contamination which may have been a part of the present project.

In order to carry out such a program more effectively, the following points will require further consideration:

1. Evaluative instruments will need to be improved to better assess the areas to be explored. An individualized approach will be needed with second grade students.
2. There should be a continual emphasis placed upon awareness of vocations, rather than upon aspiration.
3. Our Working World (SRA) should be considered a basic resource for children in economically disadvantaged areas.
4. Planned field trips to business and industry, not just sightseeing trips, should be considered for children in economically disadvantaged areas.
5. Counselors and teachers should be encouraged to innovate and create vocational materials of their own.
6. Greater emphasis should be placed upon individual counseling.

Finally, critical to the whole process of planning and experimentation, will be the answer to two questions:

1. Is the vocational guidance approach important enough and significant enough to be incorporated into the instructional program of the elementary school?
2. Is the vocational guidance approach an adequate and proper vehicle to establish the elementary counselor in a non-problem centered role?

APPENDIXES

APPENDIX A

BUDGET - PROJECT P.A.C.E.

1966-67

Salary, Professional Staff	$24,037.00
Salary, Clerk	4,376.00
Contract Service, Consultant	1,600.00
Retirement, S.T.R.S.	2,764.00
Retirement, S.E.R.S.	401.00
Testing supplies and materials	2,837.00
Travel Costs	420.00
Telephone	150.00
	$36,585.00

PROJECT P.A.C.E.

INTRODUCTION TO THE VOCATIONAL-OCCUPATIONAL PROGRAM

UNIT I WHAT DO FAMILIES DO?

General Objective: What are the jobs the family does that make life more pleasant?

Second Grade Level:

Questions:

1. What does Mother do?
   Prepare a chart story from children's contribution.

2. What does Father do?
   Chart, pictures.

3. What do I do?
   Oral reports listing jobs children can do.
   What do brothers and sisters do.

4. What do other workers that come to the home do?
   (Mailman, milkman, repairmen, meter readers, garbage collectors, etc.)

Fourth Grade Level:

Questions:

1. What contribution to happy family life do its members make?
   Discussion, questions, lists.

2. What is my family's work plan?
   Each child may prepare a short report on his family's work and what he does to contribute. Plan should answer about cooking, cleaning, repairs and skills needed to perform them.

3. Since a source of income is needed to satisfy the wants and needs of a family, how does my family derive its source of income?
   List of different occupations in the class.

Sixth Grade Level:

Questions:

1. Show film strip "Your Family and You" as a basis for discussion of the theme "What families do."

2. Preparation of a good family work plan that each child thinks would be fair and equitable with allowances for the family source of income.

3. Establishment of awareness of the wide variety of occupations by the occupations held by wage earners in the class.

4. Different jobs affect the way in which people live.

UNIT II THE WIDE WORLD OF JOBS

General Objective: To develop concepts about the wide variety and levels of jobs in our community.

Second Grade Level:

Questions:

1. What different jobs do our fathers and mothers have in our classroom?

2. Can we relate these jobs to how they contribute to the good of the community?

   (Choose an occupation to study in depth that contributes to community living)

3. Workers are interdependent.
   (Charts and books with pictures illustrating this concept.)

Questions appropriate for reports on occupations at all levels:

1. Is it a hard job? Why?
2. What are the hours you work?
3. What tools does it require?
4. Do you wear a uniform?
5. Do you have help?
6. What does the job usually pay?
7. What does the worker do to help others?

Fourth Grade Level:

Projects:

1. Relate father and mother's jobs to the community and the contribution they make.
   Oral discussion, panels, etc.

2. Study a job agreed upon by the class in depth.
   (Field trip to place of job would be helpful.)

3. Relate value of good work habits in school as contributing to future goals.

Questions appropriate for reports on occupations at all levels:

1. Is it a hard job? Why?
2. What are the hours you work?
3. What tools does it require?
4. Do you wear a uniform?
5. Do you have help?
6. What does the job usually pay?
7. What does the worker do to help others?

<u>Sixth Grade Level</u>:

Projects:

1. Use the following film strips as a basis for group discussions:
   "What is a job?"
   "What are job families?"
   "What good is school?"

2. Prepare a chart on the main industries in our community. Develop a bulletin board on how these industries contribute to community welfare.
   List the many different occupations that our main industries depend upon.
   Use resource people from industry.
   Emphasize how education contributes to the ability to perform one of these occupations.

3. A chart should be prepared to use with the film-strips and movies. The chart should give hints to the children about what to look for and listen to. Examples:

   a. What product was involved?
   b. What were the manual skills needed?
   c. What was the training required for the job?
   d. What were the personal requirements for the job?
   e. What contributions do the jobs make to the community and to the family?

Questions appropriate for reports on occupations at all levels:

1. Is it a hard job? Why?
2. What are the hours you work?
3. What tools does it require?
4. Do you wear a uniform?
5. Do you have help?
6. What does the job usually pay?
7. What does the worker do to help others?

UNIT III THE ACTIVITIES OF PEOPLE IN THEIR JOBS

General Objective: To study the school neighborhood and the people in it in order to learn how neighborhoods differ, how goods are produced, how the jobs of people affect their income, where people live and their relationships with other people.

Second Grade Level:

Questions:

1. What is a neighborhood? What keeps a neighborhood together?
   What jobs are done in the neighborhood?

2. How do different types of neighborhoods mean differences in jobs and way of living?

   a. Small town neighborhood.
   b. Big city neighborhoods.
   c. Suburban neighborhoods.
   d. Farm neighborhoods.

3. Where are the houses, stores and factories in the neighborhood?

   a. When do people move to new or better housing?
   b. Why are stores important?
   c. What jobs are there in stores used by people?
   d. What is a factory?

   Activity: Choose a factory that is familiar with the class. Study this in depth.

   (1) What are some things that decide where the factory will be built?
   (2) What jobs are in this factory?

   Pictures of work and workers.

   Do a Job Tree of this factory. List different types of jobs on the "branches".

UNIT III RELATING ABILITIES, SKILLS AND INTERESTS TO THE JOB

General Objective: To provide children with the opportunity to explore the relationship of abilities, skills and interests to various vocational pursuits.

Fourth and Sixth Grade Levels:

Questions:

1. What do I want to be now? What could I actually do now? (Physical development, skills and experiences in assuming even minor responsibilities should be explored.)

2. What kinds of activities do I like to do now?

   Discuss some of the activities the group likes best.
   Group these activities on a chart or on the blackboard into general areas such as art, music, sports, home arts, science, etc.
   Administer the "Inventory of Children's Interests" (about 55 min.). Allow children to score their own inventories and participate in plotting their own profiles.

3. How do interests relate to skills and abilities, e.g., grades in school?

   Resoure? SVE filmstrip, "What good is school?"

   Entertain group discussion of things liked.
   Raise the question as to the changing of interests as one gets more experience and learns more about the world and the self.

   Explore activities which the pupils dislike. Why is this? Can one expect uninteresting things about all jobs?

4. What kind of jobs do particular interests lead toward achieving?

UNIT IV PATHS TOWARD VOCATIONAL GOALS

General Objective: To help children explore various pathways toward vocational goals.

Fourth and Sixth Grade Levels:

1. Give each child the opportunity to make a summary of himself: skills and particular talents, abilities, strengths and weaknesses. Answer the questions:

   a. What would I like to improve in myself?
   b. How would I go about achieving this improvement?
   c. Is it important that I demonstrate my skills and abilities? If so, how should I go about this?
   d. Is it always important to do well on tests? Why?

e. Should I set some goals for myself?
(Avoid the impression that vocational goals should be set now, but encourage children to think about these. Some intermediate success goals in school could be explored with the idea that these are steps toward major life goals.)

2. Present occupational information materials from various sources:

Industry and business.
Ideas from resource persons.
SRA Occupational Briefs.
Pictures of work and workers.

3. Consider vocations in broad areas of interest and skill.

a. Working with ideas.
b. Working with things.
c. Working with people and animals.
d. Working outdoors and indoors.
e. Working in one place or many places.
f. Selling and/or serving.
g. Creating, producing and reproducing.

4. How is a vocational choice made? (Use SVE filmstrip, "What is a job?")

a. Is money important?
b. Respect of others?
c. Boss or worker?
d. Contribution to society?
e. Helping others?
f. What will be available?
g. What will be needed?
h. Ethnic group considerations?

5. Leisure, recreation, hobbies, avocations.

APPENDIX C

(Occupational Information Questionnaire)

NAME: _____

SCHOOL: _____ GRADE: _____

BIRTHDAY: _____ AGE NOW: _____

Boy Girl (Circle)

1. What kind of work does your father do? _____

_____

_____

2. What kind of work does your mother do? _____

_____

_____

3. What do you want to do when you grow up? _____

_____

_____

4. Why do you think you want to do this? _____

_____

_____

5. If you could not do this, what else would you want to do?

_____

_____

On the back of this page, draw a picture of what you think you will look like when you grow up.

APPENDIX D

(Occupational Aspiration Check List)

6. Put an X in front of the ONE job listed below which you would choose if you were free to choose any of them you wished when you are grown up.

____ 1. Electrician
____ 2. Store manager
____ 3. Supreme Court Justice
____ 4. Night watchman
____ 5. Musician
____ 6. Carpenter
____ 7. Minister
____ 8. Filling station attendant
____ 9. Factory owner
____10. Barber

7. Put an X in front of the ONE job listed below which you think would be the BEST ONE you are REALLY SURE you can get when you grow up.

____11. Newspaper reporter
____12. Owner of a farm
____13. Shoe shiner
____14. Physician
____15. Mail carrier
____16. Accountant
____17. Warehouse worker
____18. Architect
____19. Clerk in a store
____20. Mechanical engineer

8. Put an X in front of the ONE job listed below which you would choose if you were free to choose any of them you wished when you grow up.

____21. Labor union official
____22. Salesman
____23. College professor
____24. Janitor
____25. Army captain
____26. Train conductor
____27. Chemist
____28. Taxi driver
____29. Lawyer
____30. Restaurant cook

9. Put an X in front of the ONE job listed below which you think would be the BEST ONE you are REALLY SURE you can get when you grow up.

____31. Undertaker
____32. Railroad engineer
____33. Clothes presser
____34. Mayor of a large city
____35. Plumber
____36. Teacher
____37. Night club singer
____38. Banker
____39. Army sergeant
____40. Artist

10. Put an X in front of the ONE job listed below which you would choose if you were free to choose any of them you wished when you grow up.

____41. Machinist
____42. Welfare worker
____43. Scientist
____44. Soda fountain clerk
____45. Corporation director
____46. Policeman
____47. Dentist
____48. Coal miner
____49. Writer of books
____50. Truck driver

11. Put an X in front of the ONE job listed below which you think would be the BEST ONE you are REALLY SURE you can get when you grow up.

____51. Playground director
____52. Radio announcer
____53. Garbage collector
____54. Ambassador
____55. Auto mechanic
____56. Building contractor
____57. Farm worker
____58. Senator
____59. Lumberjack
____60. Airline pilot

APPENDIX E

Special Aids and Materials

Science Research Associates:

1. Widening Occupational Horizons Kit (Filmstrips, Junior Guidance Series Booklets, Occupational Briefs)
2. Our Working World - 2nd level (Texts, Workbooks, Teacher Resource Book and Records)
3. What I Like To Do - Children's Interest Inventory
4. Guidance Kit for Elementary Teachers and Counselors
5. Professional Guidance Series (6 booklets)

Stanley Bowman, Inc.

1. Filmstrips: "Building Work Habits"
2. Community Helper Study Prints

Eyegate, Inc.:

Filmstrips: "Little Things That Count"

SVE Inc.:

Filmstrips: "Learning To Live Together", Part I & Part II

U. S. Dept. of Labor:

1. Dictionary of Occupational Titles, Vols. I & II, Third Edition, 1965.
2. Training Manual for the Dictionary of Occupational Titles (Third Edition), Parts A and B.

APPENDIX F

Annotated Bibliography For Students

Grades 4-8

Title: Catholic Priest
Author: Jack Engeman
Publisher: Lee & Shepard Company
Summary: A day by day account of teaching and training for the priesthood.

Title: Librarian Wanted
Author: Adrian A. Paradis
Publisher: David McKay Company
Summary: What is your hobby or interest? Perhaps you can combine it with a lifetime career in librarianship. Thus, if music is your hobby, you might become a music librarian.

Title: What Does A Parachutist Do
Author: Wayne Hyde
Publisher: Dodd Mead and Company
Summary: Jumping from a plane thousands of feet in the air, relying on a nylon parachute to float him safely down to earth, this is only part of what a parachutist does. Once he has managed to reach the ground, he must proceed with his assigned task.

Title: Apples
Author: Mary Moore Green
Publisher: Melomont, Inc.
Summary: This book is dedicated to the memory of Grandfather Arthur R. Green who planted the apple orchards on the Green farm and who loved and respected children, grown-ups, and trees. It is dedicated also to Grandfather Green's grandchildren who lived on and loved the apple farm.

Title: Behind the Scenes In Television
Author: David C. Cooke
Publisher: Dodd, Mead and Company
Summary: Behind the Scenes in Television tells the real story of what goes on in a large network television studio, from the time the idea for a show originates through rehearsal, scenery

and set preparation, costume designing and all the myriad of other things which must be done before it is put on the air.

Title: The World of Engineering
Author: Frank Ross, Jr.
Publisher: Lathrop, Lee & Shepard Co., Inc.
Summary: The profession of engineering is one that takes on more importance with every new day of our century. More and more young people are looking to it for their life's work. Here is a book which may answer your needs, one which provides a full and complete picture of engineering in all its branches. This may involve anything from the building of a bridge or the design of a sports car to the safeguarding of a city's health.

Title: Famous Negro Athletes
Author: Arnal Bontemps
Publisher: Dodd, Mead & Co.
Summary: It was in 1935 that Joe Louis defeated Primo Carnera and became a serious contender for the world heavyweight boxing crown, which he was later to wear for ten years. Ever since that time, no group has done more to change the image of the Negro in the eyes of the world than the Negro American Athlete.

Title: Food
Author: Pauline Arnold and Percival White
Publisher: Holiday House, Inc.
Summary: Everybody eats, so we are all affected by changes in the food industry. This book describes recent changes in some of them and tells how America's biggest business developed and how it works.

Title: Night People
Author: C. B. Colby
Publisher: Coward McCann, Inc.
Summary: Night people live in what you would call a topsy-turvy world. They go to sleep when you get up and they go to work when you are ready for sleep. You may know that night people are around, but you are more safe and happy because of them.

Title: Jet Pilot Overseas
Author: Henry B. Lent
Publisher: Macmillan Co.
Summary: This book is the sequel to Jet Pilot, and describes the training of Dick Martin, a typical American boy, as a jet fighter pilot in the U. S. Air Force overseas.

Title: Annapolis
Author: Jack Engeman
Publisher: Lee, & Shepard Co., Inc.
Summary: This is a completely new kind of book on the United States Naval Academy. It is the first book to tell, in pictures and test, what actually goes on in the life of a midshipman from admission to graduation.

Title: Soil Savers
Author: C. B. Colby
Publisher: Coward McCann, Inc.
Summary: Good land is gold in America's pocket. The country's economic and material health depend upon rich productive farmland, lush forests, carpeted mountains, and well filled rivers and reservoirs.

Title: Famous Instrumentalists
Author: David Ewen
Publisher: Dodd, Mead & Co.
Summary: David Ewen has had a long and distinguished career as a writer on musical subjects. In this addition to the Famous Biographies for Young People series he presents young music lovers with an excellent introduction to the performers of today and tomorrow.

Title: Scientists Behind The Inventors
Author: Roger Burlingame
Publisher: Harcourt, Brace and Company
Summary: The book begins with a fascinating picture of science as it was two-hundred years ago and follows its development up to the present. First we meet Joseph Black of Scotland, who, in the 1750's helped James Watt to invent the steam engine.

Title: Great Experiments
Author: William Bixby
Publisher: David McKay

Summary: Experimenters are the true practitioners of science. From their work, our modern world has emerged and would be an unbelievably different world if these men had not lived and worked.

Title: Speed Kings of the Base Paths
Author: Ray Robinson
Publisher: G. P. Putnam's Sons
Summary: Few moments in any team sport are as suspenseful and exciting as the stolen base in a close baseball game. When a Maury Wills or a Willie Mays reaches first base, every knowledgeable fan in the grandstands watches for the inevitable contest between the runner and the infielder.

Title: What Does A Civil Engineer Do
Author: Robert Wells
Publisher: Dodd, Mead and Company
Summary: A civil engineer builds big things standing firm in one place: bridges, highways, skyscrapers, dams, airports, missle launching pads. He is the man who directs and supervises the work.

Title: Men At Work On The West Coast
Author: Henry B. Lent
Publisher: G. L. Putnam's Sons
Summary: From San Pedro, a tuna fleet sets out to sea. All through the Northwest, great trees crash to the ground. In Hollywood, a film director yells "Cut" while several miles away a jet whistles into the air for its first test. Here we see the vigorous men and women of the west coast at work.

Title: American Composers
Author: Elsa Z. Posell
Publisher: Houghton Mifflin Company
Summary: Elsa Posell tells the brief life stories of twenty-nine American composers. She has described the important details and influences of their early years, musical development, and achievements. She tells about their most important works, what to listen for in their music, and how their compositions fit into the various traditions of American music.

Title: Behind The Scenes At The Post Office
Author: Alfred Lewis
Publisher: Dodd, Mead and Company
Summary: Today zip coding is speeding letters from city to city and from village to village. Soon it will be coupled with machines that actually read and sort the envelopes.

Title: The Coast Guard Academy
Author: Jack Engeman
Publisher: Lee and Shepard Company
Summary: Here are all the activities of the cost of the Coast Guard Academy at New London, Connecticut. Cadets at study, work and play in living quarters, and classroom on sea duty and on the athletic fields.

Title: How Superhighways Are Made
Author: David Cooke
Publisher: Dodd, Mead & Company
Summary: All around us these days we see new superhighways being built. We not only see them; we travel over them. Here is the story of their construction.

Title: How Airplanes Are Made
Author: David C. Cooke
Publisher: Dodd, Mead & Company
Summary: Nothing in the world matches the magic that goes on inside modern factories. It is a wonderful sight to see skilled men and women take sheets of metal or rolls of wire or balls of thread and turn them into things which we use in our everyday life. The magic of our factories is the magic of America. And one of the greatest inventions our country has given to the world is the airplane.

Title: Boyhoods of Great Composers
Author: Catherine Gough
Publisher: Henry Z. Walck, Inc.
Summary: The six boys who appear in this book came from different countries and even from different centuries, but they all had great musical talent and wrote music that lived on after they themselves were dead. Catherine Gough tells how these composers began the careers that were to make their names known throughout the world.

Title: Writing for Young People
Author: Mabel Louise Robinson
Publisher: Thomas Nelson & Sons
Summary: Here is a book that has caught in extraordinary fashion the technique of writing for young people. The author is not only a distinguished professor of English in creative writing, but she has written two dozen books for both adults and children.

Title: What Does A Forest Ranger Do?
Author: Wayne Hyde
Publisher: Dodd, Mead & Company
Summary: Fighting forest fires is only part of a forest ranger's work. He may be destroying tree-killing insects, supervising the cutting of timber, shooting down avalanches, or rescuing an injured fawn.

Title: Behind the Scenes At An Airport
Author: David C. Cooke
Publisher: Dodd, Mead & Company
Summary: Here is an intimate book behind the closed doors of a modern international airport, explaining all of the things that must be done to keep fleets of giant airliners flying safely. How a pilot and his crew prepare for the flight maintenance work, handling of freight and mail safety precautions, flight control, - these and many other fascinating aspects of the airline business are explained in detail for the non-technical reader.

Title: Crime Scientist
Author: Mike McGrady
Publisher: J. B. Lippincott
Summary: Today's science has provided highly effective new weapons for the battle against crime. In this book, a skilled reporter, Mike McGrady, takes you with him to the scenes of a variety of crimes. You are there with the detectives, laboratory technicians, photographers, chemical analyst and the other experts as they develop the evidence which will lead them inevitably to the criminal.

Title: Famous Physicists
Author: A. L. Mann and C. Vivian
Publisher: The John Day Company

Summary: Not long ago we saw a picture on our television screens of the United States flag. This was not an ordinary picture of our flag waving in the breeze. This picture has been flashed 3,000 miles from Maine into space and then instantly relayed back to earth, and it was as clear as the reception from a local station.

Title: The First Book of Nurses
Author: Mary Elting
Publisher: Franklin Watts, Inc.
Summary: This is a tender story about some of the friendliest people in the world - nurses.

Title: Famous American Actors and Actresses
Author: Frederick Wagner and Barbara Brady
Publisher: Dodd, Mead & Company
Summary: Ranging from the troupers who barn-stormed frontier towns in the early 1800's to today's world traveling actors, this is a panoramic history of the American theatre told in terms of the men and women who have contributed significantly to this aspect of our culture.

Title: U. S. Air Force Academy
Author: Jack Engeman
Publisher: Lathrop, Lee & Shepard Co., Inc.
Summary: All about the life of a cadet at the U. S. Air Force Academy.

Title: Find A Career In Conservation
Author: Jean Smith
Publisher: G. P. Putnam's and Sons
Summary: Young readers will find here an honest picture of the attraction and the disadvantages of these demanding but rewarding careers.

Title: Famous Merchants
Author: Sigmund A. Lavine
Publisher: Dodd, Mead and Company
Summary: This book is composed of material Sigmund Lavine's classes thought most interesting or, as one student said, "...made me want to open a store."

Title: Animals In Science
Author: Margaret O. Hyde
Publisher: McGraw & Hill Book Company
Summary: From the depths of the ocean to outer space, animals play an important role in the world of science. Mice, dogs, apes, and monkeys paved the way for men who orbit the earth. Sharks are being used in the study of blood vessels, and crayfish in examining computer research.

Title: So You Want To Be A Nurse
Author: Alan E. Nourse, M.D.
Publisher: Harper & Row
Summary: Many of the practical details of a nursing career are covered in this book. Special programs like Army and Navy nurses training are discussed, along with financial considerations and specific kinds of nursing service.

Title: Trail Blazers of Technology
Author: Harland Manchester
Publisher: Charles Scribner's Sons
Summary: A leading science writer, the author gives a human picture of each technologist with a description of his invention. The book is dramatically illustrated in line drawings by Anthony Ravielli.

Title: Men At Work In The Great Lakes
Author: Henry B. Lent
Publisher: G. P. Putnam's Sons
Summary: From kleenex to tires, from furniture to cheese, here is the story of men and women at work all over the vast area of the Great Lakes states. They are planting crops, taking minerals from the ground, and manufacturing countless articles in their great factories. Along the shore of Lake Michigan the tourist trade florishes, while outside Terre Haute, Indiana, there is a farm where scientists are hard at work testing new discoveries for the benefit of farmers and people everywhere.

APPENDIX G

Teacher Questionnaire

During the school year, the second, fourth, and sixth grades in your school have been a part of an experimental program in vocational guidance. As you know, classes have been receiving varying degrees of assistance from the school counselor. We are anxious for your appraisal of this program and request that you reply to the following questions. Any additional comments should be placed on the back of this paper and returned to the counselor as soon as possible. Thank you.

William H. Goff
Director, Pupil Personnel

1. Do you think this has been a worthwhile program for your class? Yes ____ No ____

   Comments:

2. Would you feel that this program would be more appropriate at another grade level? Yes ____ No ____

   Comments:

3. Do you think that a vocational development program should be integrated into the curriculum? Yes ____ No ____

   Comments:

4. If so, do you feel that the counselor should serve as a resource person to this program? Yes ____ No ____

   Comments:

APPENDIX H

Parent Questionnaire

During the school year, the second, fourth, and sixth grades at Belle Haven and Jackson Schools have been a part of an experimental program in vocational guidance. Classes have been receiving varying degrees of assistance from the school counselor. We are anxious for your impression of this program and request that you complete and return this questionnaire to the school tomorrow. Thank you.

William H. Goff
Director, Pupil Personnel

1. Do you think this has been a worthwhile program for your child? Yes ____ No ____

   Comments:

2. As a result of this program, do you feel that your child has become more interested in jobs? Yes ____ No ____

   Comments:

3. Has this program helped your child to become more aware of job opportunities? Yes ____ No ____

   Comments:

APPENDIX I

Listing of Jobs Blank

Name: _____

Think of as many kinds of work that people do and write them on the lines below (3 minutes):

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____
15. _____
16. _____
17. _____
18. _____
19. _____
20. _____
21. _____
22. _____
23. _____
24. _____
25. _____
26. _____
27. _____
28. _____
29. _____
30. _____